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Datasheet for ABIN3091480
CDK13 Protein (AA 1-1512) (Strep Tag)

Overview

Quantity:	1 mg
Target:	CDK13
Protein Characteristics:	AA 1-1512
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK13 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MPSSSDTALG GGGGLSWAEK KLEERRKRRR FLSPQQPPLL LPLLQPQLLQ PPPPPPLLF
LAAPGTAAAA AAAAAASSSC FSPGPPLEVK RLARGKRRAG GRQKRRRGPR AGQEAERRRV
FSLPQPQDQ GGGASSGGGV TPLVEYEDVS SQSEQLLLLG GASAATAATA AGGTGGSGGS
PASSSGTQRR GEGSERRPRR DRRSSSGRSK ERHREHRRRD GQRGGSEASK SRSRHSLSGE
ERAEVAKSGS SSSSGGRRKS ASATSSSSSS RKDRDSKAHR SRTKSSKEPP SAYKEPPKAY
REDKTEPKAY RRRRSLPLG GRDDSPVSHR ASQSLRSRKS PSPAGGGSSP YSRRLPRSPS
PYSRRRSPSY SRHSSYERGG DVSPSPYSSS SWRRSRSPYS PVLRRSGKSR SRSPYSSRHS
RSRSRHLSR SRSRHSSISP STLTLKSSLA AELNKNKKAR AAEAARAAEA AKAAEATKAA
EAAAKAAKAS NTSTPTKGNT ETSASASQTN HVKDVKKIKI EHAPSPSSGG TLKNDKAKTK
PPLQVTKVEN NLIVDKATKK AVIVGKESKS AATKEESVSL KEKTKPLTPS IGAKKEQHV
ALVTSTLPPPL PLPPMLPEDK EADSLRGNIS VKAVKKEVEK KLRCLLADLP LPPELPGDD
LSKSPEEKKT ATQLHSKRRP KICGPYGET KEKDIDWGKR CVDKFDIIGI IGEPTYGQVY

KARDKDTGEM VALKKVRLDN EKEGFPITAI REIKILRQLT HQSIINMKEI VTDKEDALDF
KKDKGAFYLV FEYMDHDLMG LLESGLVHFN ENHIKSFMRQ LMEGLDYCHK KNFLHRDIKC
SNILLNNRGQ IKLADFLAR LYSSESRPY TNKVITLWYR PPELLLGEER YTPAIDVWSC
GCILGELFTK KPIFQANQEL AQLELISRIC GSPCPAVWPD VIKLPYFNTM KPKKQYRRKL
REEFVFIPAA ALDLFDYMLA LDPSKRCTAE QALQCEFLRD VEPSKMPPPD LPLWQDCHEL
WSKKRRRQKQ MGMTDDVSTI KAPRKDLSLG LDDSRNTNPQ GVLPSQLKS QGSSNVAPVK
TGPGQHLNHS ELAILLNLQ SKTSVNMAF VQVLNIKVNS ETQQQLNKIN LPAGILATGE
KQTDPTPQQ ESKPLGGIQ PSSQTIQPKV ETDAAQAAVQ SAFAVLLTQL IKAQSKQKD
VLLEERENG S GHEASLQLRP PPEPSTPVSG QDDLIHQDM RILELTPEPD RPRILPPDQR
PPEPPEPPV TEEDLDYRTE NQHVPTTSSS LTDPHAGVKA ALLQLLAHQH PQDDPKREGG
IDYQAGDTYV STSDYKDNFG SSSFSSAPYV SNDGLGSSSA PPLERRSFIG NSDIQSLDNY
STASSHSGGP PQPSAFSESF PSSVAGYDI YLNAGPMLFS GDKDHRFEYS HGPIAVLANS
SDPSTGPEST HPLPAKMHNH NYGGNLQENP SGPSLMHGQT WTSPAQPGY SQGYRGHIST
STGRGRGRGL PY

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

Product Details

- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	CDK13
Alternative Name:	CDK13 (CDK13 Products)
Background:	Cyclin-dependent kinase 13 (EC 2.7.11.22) (EC 2.7.11.23) (CDC2-related protein kinase 5) (Cell division cycle 2-like protein kinase 5) (Cell division protein kinase 13) (hCDK13) (Cholinesterase-related cell division controller),FUNCTION: Cyclin-dependent kinase which displays CTD kinase activity and is required for RNA splicing. Has CTD kinase activity by hyperphosphorylating the C-terminal heptapeptide repeat domain (CTD) of the largest RNA polymerase II subunit RPB1, thereby acting as a key regulator of transcription elongation. Required for RNA splicing, probably by phosphorylating SRSF1/SF2. Required during hematopoiesis. In case of infection

Target Details

by HIV-1 virus, interacts with HIV-1 Tat protein acetylated at 'Lys-50' and 'Lys-51', thereby increasing HIV-1 mRNA splicing and promoting the production of the doubly spliced HIV-1 protein Nef. {ECO:0000269|PubMed:16721827, ECO:0000269|PubMed:1731328, ECO:0000269|PubMed:18480452, ECO:0000269|PubMed:20952539}.

Molecular Weight: 164.9 kDa

UniProt: [Q14004](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)